

# VIRGINIA DEPARTMENT OF HEALTH

## Office of Licensure and Certification

### Division of Certificate of Public Need

#### Staff Analysis

March 20, 2024

**RE: COPN Request No. VA-8740**

**Chippenham and Johnston-Willis Hospitals, Inc**

**Chesterfield County**

**Add 1 MRI Scanner on the Johnston-Willis Hospital campus**

#### Applicant

Chippenham & Johnston-Willis Hospitals, Inc. (CJWH) is a proprietary, stock corporation owned by HCA, Inc. CJWH was formed in 1995 from Johnston Willis and Chippenham Hospitals. These two hospitals, although separately licensed, are considered one medical center with two campuses. Johnston Willis Hospital, the site of the proposed project, is located at 1401 Johnston Willis Drive in Chesterfield County. The applicant facility is in Planning District (PD) 15, Health Planning Region (HPR) IV.

#### Background

An MRI (Magnetic Resonance Imaging) is a noninvasive medical imaging test that produces detailed images of almost every internal structure in the human body, including organs, bones, muscles and blood vessels; the images are created using a large magnet and radio waves, and no radiation is produced.<sup>1</sup> An MRI may be used instead of a CT scan when organs or soft tissue are being studied as MRI is better at distinguishing between types of soft tissues and normal and abnormal soft tissues.<sup>2</sup>

In addition to traditional diagnostic MRI studies, MR (Magnetic Resonance) technology is now being used to guide different types of procedures that require specific localization. MR guided breast biopsies, for example, utilize an MRI scanner to locate a lump or abnormality and guide a needle to remove a tissue sample for further examination. This procedure can take three times as long as a traditional diagnostic MRI scan. Another example is MR guided focused ultrasound, which is a non-surgical procedure that treats essential tremor and tremor dominant Parkinson's Disease. The physician uses the MRI real time to target the area of the brain responsible for causing the tremors. Patients are fit with a helmet shaped device that precisely delivers sound waves that pass safely through the skull with no incisions. Only where the soundwaves converge, the temperature at the target tissue rises to cause thermal ablation of a small, targeted area. A single MR

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<sup>1</sup> <https://www.hopkinsmedicine.org/health/treatment-tests-and-therapies/magnetic-resonance-imaging-mri>

<sup>2</sup> Ibid.

guided focused ultrasound procedure can take from 90 minutes to 4 hours, after which tremors are reduced or eliminated creating immediate and life-changing results. Gamma knife also relies on MRI to perform procedures as does Navigated Stealth, a tool for identifying, marking, and localizing targets and anatomical structures in the patient’s brain in advance of neurosurgery. Johnston-Willis Hospital (Johnston Willis) is the only HCA hospital in PD 15 that offers MR guided focused ultrasound, navigated stealth and gamma knife MRI procedures. Within HCA, MR guided breast biopsy is provided at Johnston-Willis and Henrico Doctors’ Hospital – Forest.

**Table 1. PD 15 MRI Utilization, 2022 VHI**

Facility Name	Total Stationary Units	Mobile Units, % of Full-Time Operation <sup>3</sup>	Total MRI Procedures	MRI scans/unit	% of SMFP
<b>Acute Hospitals</b>					
Bon Secours Memorial Regional Medical Center	2	0	10,639	5,320	106.4%
Bon Secours Richmond Community Hospital	1	0	723	723	14.5%
Bon Secours St. Francis Medical Center	1	100%	10,650	5,325	106.5%
Bon Secours St. Mary's Hospital	2	0	6,453	3,227	64.5%
Chippenham Hospital	2	0	6,133	3,067	61.3%
Henrico Doctor's Hospital - Parham Doctors' Hospital	1	0	2,521	2,521	50.4%
Henrico Doctor's Hospital - Retreat	1	0	1,405	1,405	28.1%
Henrico Doctors' Hospital - Forest	2	0	4,667	2,334	46.7%
Johnston-Willis Hospital	3	0	13,426 <sup>4</sup>	4,475	89.5%
VCU Medical Center	7	0	22,979	3,283	65.7%
<b>Total PD 15 Acute Hospitals</b>	<b>22</b>	<b>1</b>	<b>79,596</b>	<b>3,461</b>	<b>69.2%</b>
<b>Freestanding</b>					
Bon Secours Imaging Center at Reynolds Crossing	2	0	4,214	2,107	42.1%
Bon Secours Midlothian Imaging Center	1	0	953	953	19.1%
Bon Secours Tuckahoe Orthopedics MRI	1	0	2,879	2,879	57.6%
Bon Secours Westchester Imaging Center	1	0	2,835	2,835	56.7%
Chesterfield Imaging	1	0	3,464	3,464	69.3%
Ellen Shaw De Paredes Institute For Women's Imaging	1	0	736	736	14.7%
MEDARVA Imaging	1	0	1,644	1,644	32.9%
NOW Neuroscience, Orthopaedic and Wellness Center	1	0	5,792	5,792	115.8%
OrthoVirginia - Johnston-Willis	0	100%	4,775	4,775	95.5%
OrthoVirginia MRI - Parham	1	0	5,667	5,667	113.3%
Short Pump Imaging	1	0	3,703	3,703	74.1%
VCU Medical Center at Stony Point Radiology	1	0	4,964	4,964	99.3%
Virginia Urology	0	100%	2,972	2,972	59.4%
<b>Total PD 15 Freestanding</b>	<b>12</b>	<b>2</b>	<b>44,598</b>	<b>3,186</b>	<b>63.7%</b>
<b>PD 15 Total MRI Utilization and Average</b>	<b>34</b>	<b>3</b>	<b>124,194</b>	<b>3,357</b>	<b>67.1%</b>

Source: VHI

<sup>3</sup> Full-time operation of a mobile MRI unit is ten half-days.

<sup>4</sup> Johnston-Willis’ VHI reporting for 2022 only included scans with stand-alone MRI charges and omitted in error MRI volumes reimbursed pursuant to a global charge for which MRI is a critical component, such as gamma knife, MR guided focused ultrasound and Navigated Stealth. These volumes are included here.

**Table 2. PD 15 MRI Inventory and Changes from 2022 VHI**

	<b>Stationary</b>	<b>Mobile</b>
2022 Inventory	34	3
Change between 2022 VHI and Current Inventory	+7	-1
<b>Current Inventory of PD 15 MRI Scanners:</b>	<b>41</b>	<b>2</b>

<b>Differences between VHI 2022 and Current Inventory</b>	<b>Stationary Change since 2022 VHI</b>	<b>Mobile Change since 2022 VHI</b>	<b>Notes</b>
Bon Secours Short Pump Imaging Center	1		<i>Did not report/was not published in 2022</i>
Bon Secours Ashland Emergency and Imaging Center	1		<i>Per COPN No. VA-04864, October 30, 2023</i>
Bon Secours Chester Emergency & Imaging Center	1		<i>Per COPN No. VA-04744, May 3, 2021</i>
Bon Secours St. Francis Medical Center	1		<i>Per COPN No. 04673, relocate MRI at Midlothian to St Francis</i>
Bon Secours Midlothian Imaging Center	-1		
Chester Imaging Center	1		<i>Per COPN No. VA-04655, May 21, 2019.</i>
Short Pump Imaging	-1		<i>Per COPN No. VA-04823 authorized relocation.</i>
Short Pump Imaging (new location on W. Broad St.)	1		
OrthoVirginia Johnston-Willis		-1	<i>Per COPN No. VA-04831, Replace/Relocate mobile at OV Johnston-Willis to stationary OV in Midlothian</i>
OrthoVirginia Westchester	1		
VCU Medical Center	1		<i>Per COPN No. VA-04760, add VCUMC's 8th diagnostic scanner</i>
VCU Medical Center Adult Outpatient Pavilion	1		<i>Per COPN No. VA-04717, August 31, 2020</i>
West Creek Medical Center	0		<i>COPN No. VA-04179, now listed in MRI inventory under "Closed Facilities/Abandoned Projects"</i>
<b>Difference between 2022 VHI and Current Inventory</b>	<b>+7</b>	<b>-1</b>	

Source: DCOPN Records

In 2022, the latest year for which such data are available, 34 fixed MRIs and 3 mobile MRIs in PD 15 reported volumes to VHI. Their utilization is shown in **Table 1**, with a correction to Johnston-Willis' reporting that now includes MRI procedures reimbursed pursuant to a global charge. Johnston-Willis previously reported only the volumes of traditional MRI scans charged independently and not MRI studies that were a necessary component of a procedure that required MR technology for guidance (such as Gamma Knife MRI procedures). Utilization of the MRI scanners in PD 15 was 67.1%. DCOPN records show that there are now 41 fixed MRI scanners and 2 mobile MRI scanners in the PD 15 inventory. Changes to the MRI count authorized since 2022 (and one facility omitted from the VHI report in 2022) are documented in **Table 2**, and account for the difference between the current inventory and the number of MRI scanners in **Table 1**.

**Proposed Project**

CJWH proposes to add a fourth MRI scanner on its Johnston-Willis campus in Chesterfield County, citing its specialized programs in neurosciences, brain and breast cancer and stroke as services that require MRI technology for treatments, beyond traditional diagnostic MRI studies. The proposed MRI is to be located in 1,313 gross square feet in a new addition to the hospital building, constructed to expand support for the growing neurosciences services. Projected capital costs for the proposed project are \$3,725,800 (**Table 3**) all of which will be funded with accumulated reserves such that no financing costs will be incurred. Should the proposal be approved, the target date to become operational is 28 months after issuance of a COPN.

**Table 3. Capital Costs, Add 4th MRI at Johnston-Willis Hospital**

Direct Construction Costs	\$1,496,000
Equipment not included in construction costs	\$2,072,800
Off-Site Costs	\$32,000
Architectural and Engineering fees	\$125,000
<b>TOTAL CAPITAL COST</b>	<b>\$3,725,800</b>

Source: COPN Request No. VA-8740

**Project Definition**

Section 32.1-102.1:3 of the Code of Virginia defines a project, in part, as the “addition by an existing medical care facility described in subsection A of any new medical equipment for the provision of ... magnetic resonance imaging (MRI)...” A medical care facility includes “[a]ny facility licensed as a hospital...”

**Required Considerations -- § , of the Code of Virginia**

In determining whether a public need exists for a proposed project, the following factors shall be taken into account when applicable.

- 1. The extent to which the proposed service or facility will provide or increase access to needed services for residents of the area to be served, and the effects that the proposed service or facility will have on access to needed services in areas having distinct and unique geographic, socioeconomic, cultural, transportation, and other barriers to access to care.**

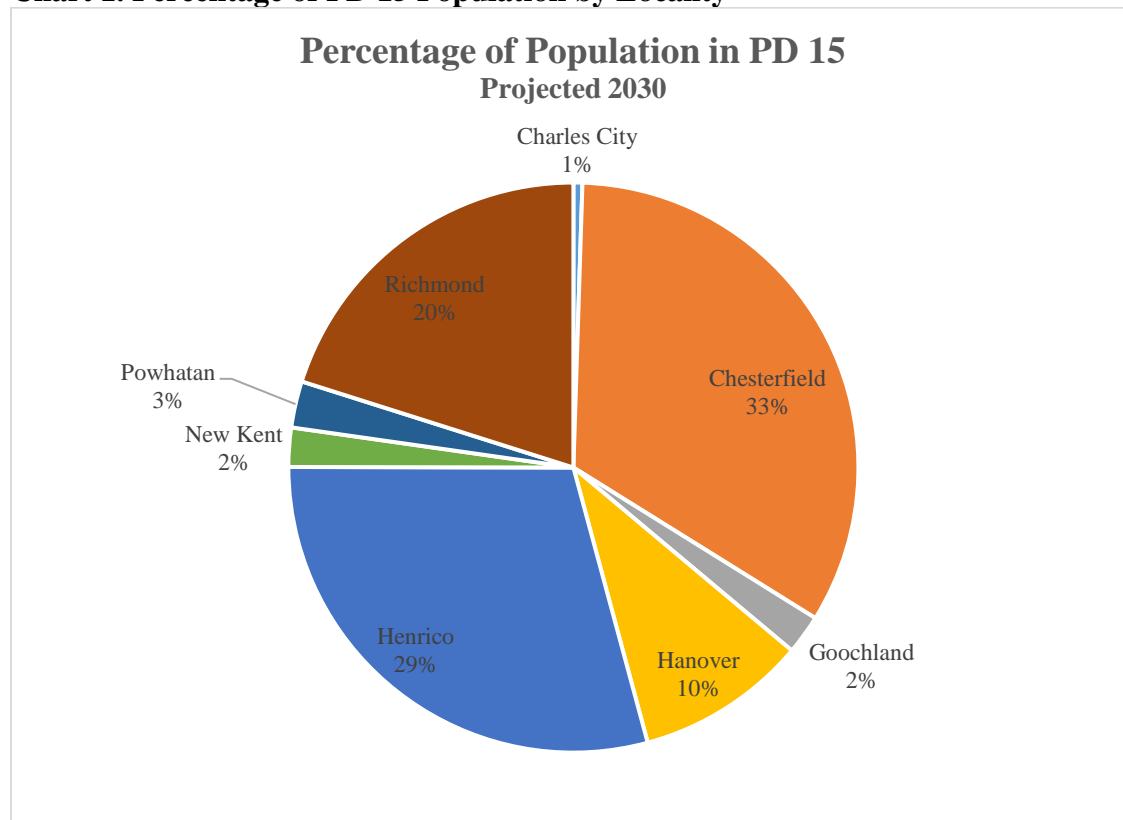
PD 15 had a population just over 1.1 million in 2020 and is projected to add nearly 100,000 to its population by 2030. Its projected growth of 8.6% by the end of the decade is a higher growth rate than the 5.6% projected for Virginia. (**Table 4**). Chesterfield County, where the proposed project is located, represents about a third of the PD 15 population (**Chart 1**) and is projected to grow by over 41,000 people between 2020 and 2030. Chesterfield County has a higher rate of growth (11.3%) than PD15 as a whole, and twice the rate of growth projected for Virginia overall.

**Table 4. PD 15 Population Data**

	2020 Population	2030 Projected Population	Proj. Population Change 2020-2030	Proj. Percent Change 2020-2030	2020 65+ Population	Proj. 2030 65+ Population	Proj. 65+ Population Change 2020-2030	Proj. 65+ Percent Change 2020-2030
Charles City	6,758	6,200	-558	-8.30%	1,773	2,189	416	23.40%
Chesterfield	365,627	406,942	41,315	11.30%	55,297	72,476	17,179	31.10%
Goochland	24,809	27,339	2,530	10.20%	5,420	7,421	2,001	36.90%
Hanover	110,164	118,374	8,210	7.50%	19,807	27,456	7,649	38.60%
Henrico	334,756	356,656	21,900	6.50%	53,255	68,003	14,748	27.70%
New Kent	23,069	27,067	3,998	17.30%	4,303	6,663	2,360	54.80%
Powhatan	30,355	32,152	1,797	5.90%	6,041	8,552	2,511	41.50%
Richmond	226,613	245,437	18,824	8.30%	26,352	31,657	5,305	20.10%
<b>PD 15</b>	<b>1,140,301</b>	<b>1,238,825</b>	<b>98,524</b>	<b>8.60%</b>	<b>176,028</b>	<b>228,611</b>	<b>52,583</b>	<b>29.90%</b>
<b>Virginia</b>	<b>8,646,905</b>	<b>9,129,002</b>	<b>482,097</b>	<b>5.60%</b>	<b>1,352,448</b>	<b>1,723,382</b>	<b>370,934</b>	<b>27.40%</b>

Source: Weldon Cooper Intercensal Estimates

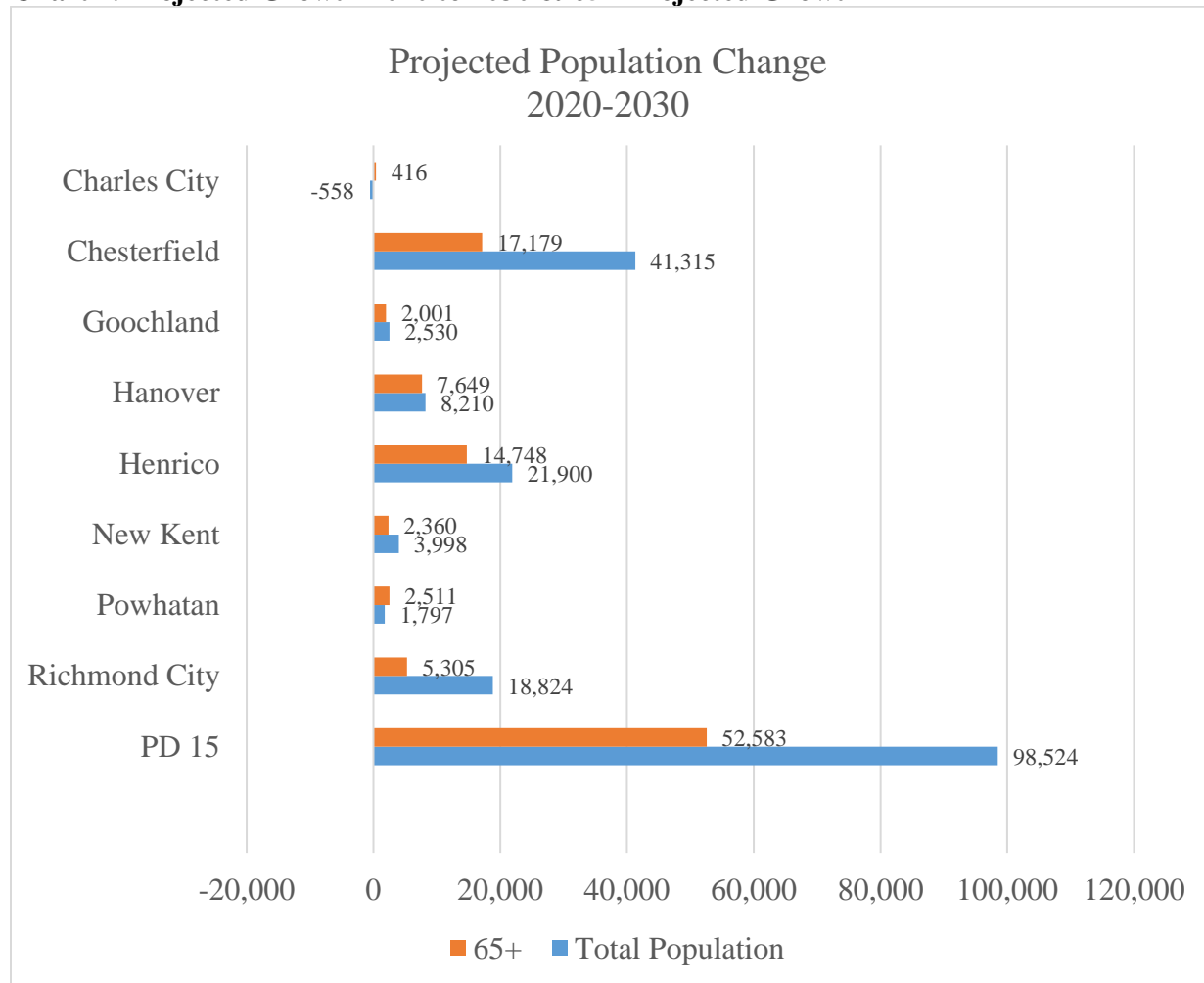
**Chart 1. Percentage of PD 15 Population by Locality**



Source: Weldon Cooper Intercensal Estimates

People aged 65 and older, have a higher utilization rate for advanced imaging services than younger individuals,<sup>5</sup> so they are an important demographic in projects involving MRI imaging. The population over age 65 is expected to grow at a higher rate in PD 15 (29.9%) than that of Virginia (27.4%), and a slightly higher rate in Chesterfield County, specifically (31.1%). Chesterfield County is projected to increase by over 17,000 individuals over age 65 between 2020 and 2030 through aging and in migration (**Table 4/Chart 2**).

**Chart 2. Projected Growth 2020 to 2030 & 65+ Projected Growth**



Source: Weldon Cooper Intercensal Estimates

**Table 5** shows that PD 15 has a poverty rate just under that of Virginia (10.7%). The poverty rate in Chesterfield County is lower still at 7.6%, indicating fewer socioeconomic barriers than other areas of PD 15.

<sup>5</sup> <https://jamanetwork.com/journals/jama/fullarticle/2749213>

**Table 5. PD 15 Poverty Rates**

<b>Geographic Name</b>	<b>Poverty Rate</b>
Charles City County	12.30%
Chesterfield County	7.60%
Colonial Heights City	13.50%
Goochland County	6.70%
Hanover County	5.20%
Henrico County	9.00%
New Kent County	5.20%
Powhatan County	6.90%
<i>Richmond City</i>	<i>24.50%</i>
<b>PD 15 Totals</b>	<b>10.10%</b>
<b>Virginia</b>	<b>10.70%</b>

Source: Weldon-Cooper Census Data

Johnston-Willis is easily accessible, located just off Midlothian Turnpike/US Route 60, a major thoroughfare. Midlothian Turnpike intersects the Powhite Parkway/State Route 76, another major thoroughfare, approximately three miles east of Johnston-Willis. No public transportation is referenced in the application.

The applicant is a tertiary care center that provides an extensive array of services. Of specific relevance to the proposed project are Johnston-Willis' certifications in Stroke Rehabilitation and Brain Tumor care, and its recognitions and awards related to breast imaging. It is one of only four hospitals in Virginia to receive Det Norske Veritas (DNV) Healthcare's Comprehensive Stroke Center Certification; the first and one of six in the United States (U.S.) (and the only one in Virginia) to be awarded The Joint Commission's Gold Seal Certificate of Distinction in Brain Tumor Care; and has recognitions in breast health from the American College of Radiology, the American College of Surgeons and the Women's Choice Award.

The applicant is the only provider of Gamma Knife in HPR IV and one of only five providers in Virginia that offer MR guided focused ultrasound (the only provider in PD 15). The proposed project seeks to enhance MRI capacity at Johnston-Willis in order to provide more timely access to unique services that are supported by MR technology that require long blocks of MRI time. By adding the proposed MRI scanner capable of supporting MR guided focused ultrasound, these lengthy procedures can be spread between two MRI units and reduce wait times for these and other types of MRI procedures.

**2. The extent to which the project will meet the needs of the residents of the area to be served, as demonstrated by each of the following:**

- (i) The level of community support for the project demonstrated by citizens, businesses, and governmental leaders representing the area to be served.**

DCOPN received a resolution from the Executive Committee of the Medical Staff of CJWH and two letters of support, one from Radiology Associates of Richmond, Inc. and one from the

Chairman of Neuroscience at Chippenham Johnston Willis Medical Center. These supporting documents, in aggregate, expressed the following:

- Johnston-Willis consistently provides high-quality imaging to our patients in need of MRI services, but existing MRIs are highly utilized and additional capacity is needed.
- The medical staff at Johnston-Willis supports the proposed project and radiologists and neuroscience physicians are committed to provide coverage for MRI and services that utilize it.
- An MRI scanner can provide invaluable information to physicians in treating a variety of conditions from neurological to orthopedic and cardiac disease.
- Delivery of high-quality patient care depends on accurate and prompt assessment of the patient's condition.
- Johnston-Willis is among the most sophisticated neuroscience hospitals in Virginia.
- As a result, it offers a number of complex MRI procedures that take considerably more time than routine MRI scans.
- Simple volume counts do not provide an accurate picture of the high utilization currently experienced by Johnston-Willis' MRI service.
- Though the three existing MRI scanners average less than the SMFP's 5,000 procedure per unit standard, they are at full capacity due to the unique combination of MRI procedures performed.
- HCA Virginia proactively embraces technology and innovation, and Johnston-Willis is pioneering treatment for essential tremor, which affects approximately 3% of the population.
- This is a nervous condition that causes involuntary tremors, primarily in the patient's hand, head and voice, and can be debilitating, often interfering with daily life tasks such as eating, drinking, cooking, writing and working on a computer.
- MRI Guided Focused Ultrasound provides patients with an incisionless treatment option, often performed on an outpatient basis with a short recovery time.
- Johnston-Willis was the first private institution to use MRI Guided Focused Ultrasound for essential tremors.
- The procedure is one of very few that provides instant gratification for the patient, families, and nursing team. After the procedure, patients are tested to drink from a water bottle and write their name—something most have not been able to do for many years—regarded by most families as nothing short of a miracle.
- In 2004, Johnston-Willis became the second hospital in Virginia to offer Gamma Knife capability. It is an incisionless tool to treat brain tumors on an outpatient basis.
- Gamma Knife enables patients to live longer and with less disability.
- Thousands of patients travel to Richmond from across the country for these procedures that are a safer alternative to traditional brain surgery.
- Demand for these services is expected to continue to grow.
- As a learning health system HCA Virginia's future-focused environment is helping to design the healthcare landscape of the future.
- The proposed new MRI scanner is essential to Gamma Knife and MRI Guided Focused Ultrasound programs at Johnston-Willis. The project has the ability to change lives in a monumental way by ensuring timely access to MRI, an essential tool in these innovative procedures.



- The MRI scanners at Johnston-Willis are highly utilized and demand for scans continues to grow. Neuroscience patients require complex MRI scans that take significantly longer than a typical MRI scan.
- Johnston-Willis allots 30 minutes for a typical MRI scan, but MRI Guided Focused Ultrasound requires 272 minutes.
- The SMFP does not address programs that offer complex MRI scans, and the unusual mix of time-consuming MRI procedures at Johnston-Willis should be considered.
- Because of high demand, Johnston-Willis' MRI patients often have longer wait times to receive scans which adversely affects both timely diagnosis and treatment. For example, patient waits for MRI Guided Focused Ultrasound is 90 days, which is frustrating for patients and providers.
- For many conditions, timely and accurate diagnosis and treatment are essential to positive outcomes, such as stroke, traumatic brain injuries, tumors in the brain and spinal cord, abnormal brain development and neurodegenerative disorders.

### Public Hearing

§32.1-102.6B of the Code of Virginia directs DCOPN to hold one public hearing on each application in the case of competing applications; or in response to a written request by an elected local government representative, a member of the General Assembly, the Commissioner, the applicant, or a member of the public. COPN Request No. VA-8740 is not competing with another project and DCOPN did not receive a request to conduct a public hearing for the proposed project. Thus, no public hearing was held.

DCOPN provided notice to the public regarding this project inviting public comment on January 10, 2024. The public comment period closed on February 26, 2024. Other than the letters of support referenced above, no members of the public commented. There is no known opposition to the project.

**(ii) The availability of reasonable alternatives to the proposed service or facility that would meet the needs of the population in a less costly, more efficient, or more effective manner.**

There is no reasonable alternative to the proposed project. Johnston-Willis provides unique and complex MRI services, particularly those related to its neuroscience programming, that require extended blocks of MRI time. The applicant has provided minutes per procedure for several complex MRI procedures that it offers (**Table 6**). The lengthiest procedure is MR Guided Focused Ultrasound, which, the applicant asserts, takes 272 minutes (4 hours, 32 minutes) of MRI time, compared to 25 to 30 minutes for a traditional MRI scan. Nine to eleven traditional MRI scans can be done in the same time it takes to complete one MR Guided Focused Ultrasound procedure. MR Guided Breast Biopsies take 2.5 to 3 times as many minutes of MRI time as does a traditional MRI scan. In 2022, Johnston-Willis was at 89.5% of the volume-based SMFP utilization standard of 5,000 MRI scans. Offering beneficial, uncommon, and growing services that require large blocks of MRI time requires capacity beyond the average anticipated by the SMFP. The status quo limits access to needed services and will perpetuate extended wait times for all MRI services. The proposed project is more beneficial than the status quo.

**(iii) Any recommendation or report of the regional health planning agency regarding an application for a certificate that is required to be submitted to the Commissioner pursuant to subsection B of § 32.1-102.6.**

Currently there is no organization in HPR IV designated by the Virginia Department of Health to serve as the Health Planning Agency for PD 15. Therefore, this consideration is not applicable to the review of the proposed project.

**(iv) Any costs and benefits of the project.**

Total projected capital costs for the proposed project are \$3,725,800, funded in its entirety with accumulated reserves, so there are no financing costs involved in the proposed project. The estimated costs are consistent with other recently approved projects to add an MRI, COPN Nos. VA-04779 at \$3.6 million, VA-04801 at \$4.6 million and VA-04872 at \$5 million, for example.

The applicant and documentation of support have described several benefits to the proposed project: It will enable the applicant to meet the demand for its growing neurosciences and cancer programs that require MR technology. Adding a second MR Guided Focused Ultrasound-capable MRI scanner to the one Johnston-Willis has will spread these lengthy procedures over two MRI scanners and reduce wait times for this life-changing procedure, now at 90 days. Johnston-Willis is enrolling patients for a clinical trial that utilizes MR Guided Focused Ultrasound, which will add additional lengthy MRI procedures at the facility. Additional MRI capacity will reduce time for all types of MRI procedures, providing faster diagnoses and treatment for conditions requiring MRI capabilities.

**(v) The financial accessibility of the project to the residents of the area to be served, including indigent residents.**

CJWH provided charity care in the amount of 1.0% in 2021, the latest year for which such data are available. This is consistent with the HPR IV average of 1.0% that year (**Table 5**), as is the charity percentage projected in the proposed project's proforma (**Table 8**). In accordance with section 32.1-102.4.B of the Code of Virginia, should the proposed project receive approval, the project would be conditioned to provide a level of charity care based on gross patient revenues derived from MRI imaging that is no less than the equivalent average for charity care contributions in HPR IV. Pursuant to Code of Virginia language any COPN issued for this project will also be conditioned on the applicant's agreement to accept patients who are the recipients of Medicare and Medicaid.

**Table 5. 2021 Charity Care, HPR IV**

2021 Charity Care Contributions at or below 200% of Federal Poverty Level			
HPR IV	Gross Pt Rev	Adjusted Charity Care	%
Encompass Health Rehab Hospital of Petersburg	\$ 26,851,240	\$ 1,046,165	3.9%
Southern Virginia Regional Medical Center	\$ 193,424,382	\$ 6,462,541	3.3%
Sentara Halifax Regional Hospital	\$ 305,216,000	\$ 5,567,790	1.8%
Bon Secours St. Francis Medical Center	\$ 1,075,574,864	\$ 15,314,171	1.4%
Southside Regional Medical Center	\$ 2,000,593,397	\$ 27,695,403	1.4%
Bon Secours Richmond Community Hospital	\$ 991,036,257	\$ 11,039,087	1.1%
CJW Medical Center	\$ 8,975,939,621	\$ 87,710,457	1.0%
Henrico Doctors' Hospital	\$ 5,763,604,659	\$ 52,734,748	0.9%
VCU Health System	\$ 6,809,570,615	\$ 61,295,221	0.9%
Bon Secours St. Mary's Hospital	\$ 2,358,088,813	\$ 20,998,912	0.9%
TriCities Hospital	\$ 1,324,643,208	\$ 9,600,576	0.7%
Shelting Arms Institute	\$ 137,252,572	\$ 970,918	0.7%
Bon Secours Memorial Regional Medical Center	\$ 1,614,325,924	\$ 9,753,218	0.6%
Community Memorial Hospital	\$ 343,583,756	\$ 1,572,169	0.5%
Encompass Health Rehab Hosp of Virginia	\$ 25,150,781	\$ 107,359	0.4%
Southside Community Hospital	\$ 383,098,711	\$ 1,431,006	0.4%
Cumberland Hospital for Children and Adolescents	\$ 39,513,361	\$ -	0.0%
Select Specialty Hospital – Richmond	\$ 141,742,321	\$ -	0.0%
Total Inpatient Hospitals:			18
<b>HPR IV Inpatient Hospital Median</b>			0.9%
<b>HPR IV Total Inpatient \$ &amp; Mean %</b>	\$ 32,509,210,482	\$ 313,299,741	<b>1.0%</b>
Boulders Ambulatory Surgery Center	\$ 108,434,022	\$ 3,555,600	3.3%
St. Mary's Ambulatory Surgery Center	\$ 44,154,385	\$ 634,846	1.4%
Urosurgical Center of Richmond	\$ 41,571,274	\$ 544,435	1.3%
Virginia Eye Institute, Inc.	\$ 35,627,224	\$ 308,496	0.9%
MEDRVA Surgery Center @ West Creek	\$ 9,492,898	\$ 7,975	0.1%
American Access Care of Richmond	\$ 5,226,209	\$ -	0.0%
Cataract and Refractive Surgery Center	\$ 9,247,035	\$ -	0.0%
MEDRVA Stony Point Surgery Center	\$ 58,223,076	\$ -	0.0%
Skin Surgery Center of Virginia	\$ 1,454,451	\$ -	0.0%
Virginia Beach Health Center VLPP	\$ 2,651,434	\$ -	0.0%
Total Outpatient Hospitals:			10
<b>HPR IV Total Outpatient Hospital \$ &amp; Mean %</b>	\$ 316,082,008	\$ 5,051,352	<b>1.6%</b>
Total Hospitals:			28
<b>HPR IV Total Hospital \$ &amp; Mean %</b>	\$ 32,825,292,490	\$ 318,351,093	<b>1.0%</b>

Source: VHI

(vi) At the discretion of the Commissioner, any other factors as may be relevant to the determination of public need for a project.

There are no other factors, not addressed elsewhere in the analysis, relevant to the determination of a public need for either project.

**3. The extent to which the application is consistent with the State Medical Facilities Plan.**

Section 32.1-102.2:1 of the Code of Virginia calls for the State Health Services Plan Task Force to develop recommendations for a comprehensive State Health Services Plan (SHSP). In the interim,

DCOPN will consider the consistency of the proposed project with the predecessor of the SHSP, the State Medical Facilities Plan (SMFP).

The State Medical Facilities Plan (SMFP) contains the criteria and standards for MRI services. They are as follows:

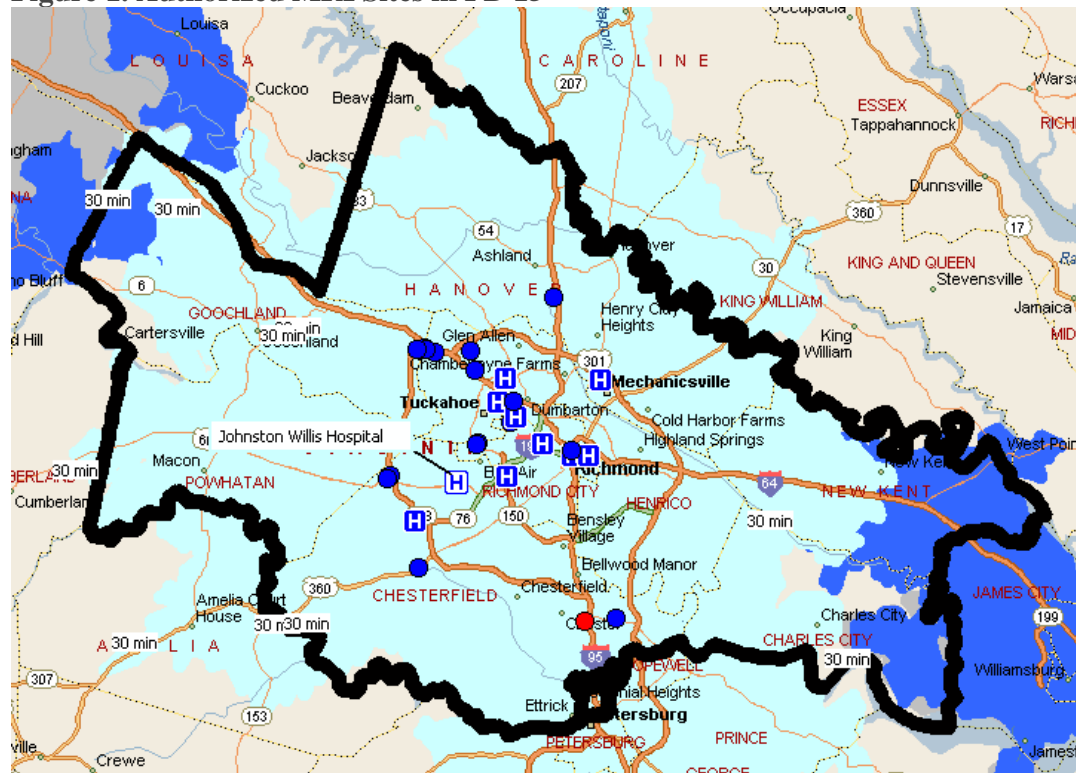
**12VAC5-230 Part I, Article 2**  
**Criteria and Standards for Magnetic Resonance Imaging**

**12VAC5-230-140. Travel time.**

**MRI services should be within 30 minutes driving time one way under normal conditions of 95% of the population of the health planning district using a mapping software as determined by the commissioner.**

The light blue shaded area in **Figure 1** illustrates the areas in PD 15 that have MRI services available within 30 minutes driving distance. The dark blue illustrates MRI coverage within 30 minutes from providers outside of PD 15. The areas not within the shaded area include Cartersville (population 1,434 per 2020 Census), Beaverdam (population 14,374 per 2020 Census), and a small section of Charles City County. The total PD 15 population was 1,140,301 so it is clear that more than 95% of the PD is within the appropriate driving time from MRI services according to the SMFP standard. The white icon with the blue H shows the location of the proposed project, while blue icons with white Hs show the other hospital-based MRI scanners in PD 15. Dots indicate freestanding MRI sites and the red dot indicates an MRI in a freestanding emergency department. The proposed project is at an existing MRI site and will not increase geographical access to MRI services.

**Figure 1. Authorized MRI Sites in PD 15**



Source: DCOPN Records and Microsoft Streets & Trips Software

**12VAC5-230-150. Need for new fixed site service.**

No new fixed site MRI services should be approved unless fixed site MRI services in the health planning district performed an average of 5,000 procedures per existing and approved fixed site MRI scanner during the relevant reporting period and the proposed new service would not significantly reduce the utilization of existing fixed site MRI providers in the health planning district. The utilization of existing scanners operated by a hospital and serving an area distinct from the proposed new service site may be disregarded in computing the average utilization of MRI scanners in such health planning district.

The applicant is not proposing a new fixed site service, so this standard is not applicable. For the sake of completeness, utilization of fixed site services in PD 15 is calculated. Of the total 124,194 MRI scans in PD 15 in 2022 (Table 1), 114,438 were performed on fixed site MRI scanners. The 34 fixed site MRI units performed an average of 3,366 MRI scans per unit, which is 67.3% of the SMFP standard of 5,000 procedures:

$$114,438/34 = 3,366$$

$$(3,366/5000) \times 100 = 67.3\%$$

The 114,438 MRI scans operating at an average of 5,000 scans per unit would fully-utilize 23 fixed site MRI scanners based upon the SMFP volume threshold. With 41 fixed site MRI scanners now in the PD 15 inventory (Table 2), there is a calculated surplus of 18 fixed site scanners in PD 15.

**12VAC5-230-160. Expansion of fixed site service.**

Proposals to expand an existing medical care facility’s MRI services through the addition of an MRI scanner may be approved when the existing service performed an average of 5,000 MRI procedures per scanner during the relevant reporting period. The commissioner may authorize placement of the new unit at the applicant’s existing medical care facility, or at a separate location within the applicant’s primary service area for MRI services, provided the proposed expansion is not likely to significantly reduce the utilization of existing providers in the health planning district.

Johnston-Willis performed 13,426 MRI procedures in 2022, including procedures for which MR technology was used to guide other procedures. Johnston-Willis’ three MRI scanners averaged 4,475 procedures per scanner, 89.5% of the SMFP standard. Some of the procedures performed required extended blocks of time to complete. The applicant provided the following data:

**Table 6. Johnston Willis MRI Procedures, 2022**

Type of MRI Procedures	Volume	Average Minutes per Procedure
MRI Scans	12,587	25
MR Guided Breast Biopsy	196	75
Navigated Stealth and Gamma Knife	588	30
MRI Guided Focused Ultrasound Procedures	55	272
<b>Total MRI Procedures<sup>6</sup></b>	<b>13,426</b>	

Source: COPN Request No. VA-8740

<sup>6</sup> Of these procedures, MRI Scans and MR Guided Breast Biopsies were reported to VHI in 2022; Navigated Stealth, Gamma Knife and MR Guided Focused Ultrasound were omitted in error. The omission has been corrected in this analysis.

Because the proposed project is at an existing MRI provider site, and the proposed additional MRI would be partially used for lengthy procedures not offered at other sites in PD 15, it is unlikely that the expansion would significantly impact other existing providers.

**12VAC5-230-170. Adding or expanding mobile MRI services.**

- A. Proposals for mobile MRI scanners shall demonstrate that, for the relevant reporting period, at least 2,400 procedures were performed and that the proposed mobile unit will not significantly reduce the utilization of existing MRI providers in the health planning district.**
- B. Proposals to convert authorized mobile MRI scanners to fixed site scanners shall demonstrate that, for the relevant reporting period, 3,000 procedures were performed by the mobile scanner and that the proposed conversion will not significantly reduce the utilization of existing MRI providers in the health planning district.**

This provision is not applicable as the applicant is not proposing to add or expand mobile MRI services.

**12VAC5-230-180. Staffing.**

**MRI services should be under the direct supervision of one or more qualified physicians.**

The applicant has provided assurances that its proposed additional MRI scanner will be under the direct supervision of one or more qualified physicians.

**12VAC5-230-80. When institutional expansion needed.**

**A. Notwithstanding any other provisions of this chapter, the commissioner may grant approval for the expansion of services at an existing medical care facility in a health planning district with an excess supply of such services when the proposed expansion can be justified on the basis of a facility's need having exceeded its current service capacity to provide such service or on the geographic remoteness of the facility.**

Although PD 15 has a surplus of MRI scanners, Johnston-Willis' advanced programs in neurosciences and cancer care, specifically require MRI technology for procedures not offered by other providers in PD 15. Johnston-Willis is the only provider of Gamma Knife in HPR IV and the only provider of MR Guided Focused Ultrasound in PD 15, one of only five providers in Virginia. In order to offer and grow these tertiary services, adequate MRI capacity is required.

Patients are experiencing extended wait times of more than 20 days for most MRI scans at Johnston-Willis, over 70 days for MR Guided Breast Biopsies and 97 days for MR Guided Focused Ultrasounds. The proposed MRI has capability to perform MR Guided Focused Ultrasounds, which would double capacity at Johnston-Willis for these procedures that take ten times as long to perform as traditional MRI scans. The proposal will not only reduce wait times for MR Guided Focused Ultrasound, but shifting procedures performed on Johnston-Willis' existing 3T MRI scanner to the proposed MRI also creates capacity to reduce wait times for procedures such as MR Guided Breast Biopsies.

**B. If a facility with an institutional need to expand is part of a health system, the underutilized services at other facilities within the health system should be reallocated, when appropriate, to the facility with the institutional need to expand before additional services are approved for the applicant. However, underutilized services located at a health system's geographically remote facility may be disregarded when determining institutional need for the proposed project.**

HCA’s PD 15 MRI scanners had utilization averaging 64.2% of the SMFP volume standard in 2022 (Table 7). Two HCA facilities had low utilization in 2022. The applicant asserts that Henrico Doctor’s Hospital Forest experienced significant downtime and other issues in 2022, but since these have been resolved, its annualized volumes equal 61.5% of the SMFP standard in 2023. The MRI at Henrico Doctor’s Hospital-Retreat is the only MRI at that facility and is not appropriate for reallocation to the proposed site.

**Table 7. Utilization of PD 15 HCA MRI Sites, 2022**

Facility Name	Total Stationary Units	Total MRI Procedures	MRI scans/unit	% of SMFP
Chesterfield Imaging	1	3,464	3464.0	69.3%
Chippenham Hospital	2	6,133	3066.5	61.3%
Henrico Doctor's Hospital - Parham Doctors' Hospital	1	2,521	2521.0	50.4%
Henrico Doctor's Hospital - Retreat	1	1,405	1405.0	28.1%
Henrico Doctors' Hospital - Forest	2	4,667	2333.5	46.7%
Johnston-Willis Hospital	3	13,426	4475.3	89.5%
Short Pump Imaging	1	3,703	3703.0	74.1%
<b>HCA Totals and Average</b>	<b>11</b>	<b>35,319</b>	<b>3210.8</b>	<b>64.2%</b>

Source: VHI 2022 and COPN Request No. VA-8740 for corrected Johnston-Willis Volumes

**C. This section is not applicable to nursing facilities pursuant to § 32-102.3:2 of the Code of Virginia.**

**D. Applicants shall not use this section to justify a need to establish new services.**

The proposed project is not a nursing facility nor is it being used to justify need for a new service.

**Required Considerations Continued**

**4. The extent to which the proposed service or facility fosters institutional competition that benefits the area to be served while improving access to essential health care services for all persons in the area to be served.**

PD 15 is served by multiple thriving providers of MRI imaging services and the market is not highly concentrated, generally. The proposed project is based on an institutional need to improve access for specific specialized services at Johnston-Willis, some of which are only provided at that facility,

but other providers within PD 15 are not seeking to offer these exclusive services. The proposal would not foster beneficial institutional competition.

**5. The relationship of the project to the existing health care system of the area to be served, including the utilization and efficiency of existing services or facilities.**

PD 15 is well served by hospital-based, freestanding and specialty physician-operated MRI services. Bon Secours, HCA, and VCU Health as well as specialists in urology, women’s services, neurosciences, orthopedics and others represent a wide variety of providers. Johnston-Willis is one of the campuses of CJWH, part of HCA Health Services of Virginia, Inc. HCA operates just over a quarter of the MRI scanners in the current PD 15 inventory.

**6. The feasibility of the project, including the financial benefits of the project to the applicant, the cost of construction, the availability of financial and human resources, and the cost of capital.**

The projected costs of the proposed project are reasonable, and the applicant will fund the capital costs in their entirety with internal reserves. The proforma projects a positive net income of about \$7 million each of the first two years following implementation of the proposed project. Though healthcare staffing is challenging across Virginia, additional human resources required to operationalize are modest at 3.5 FTEs.

**Table 8. Proforma Johnston Willis Hospital MRI Addition**

	<b>Year 1</b>	<b>Year 2</b>
<b>Gross Revenue</b>	<b>\$ 118,121,879</b>	<b>\$ 128,177,549</b>
Charity Care	\$ 1,181,219	\$ 1,281,775
Bad Debts	\$ 7,087,313	\$ 7,690,653
Contractual Deductions	\$ 94,815,718	\$ 103,362,618
<b>Net Revenue</b>	<b>\$ 15,037,629</b>	<b>\$ 15,842,503</b>
<b>Expenses</b>	<b>\$ 8,061,387</b>	<b>\$ 8,461,372</b>
<b>Income/Loss</b>	<b>\$ 6,976,242</b>	<b>\$ 7,381,131</b>

Source: COPN Request No. VA-8740

**7. The extent to which the project provides improvements or innovations in the financing and delivery of health services, as demonstrated by: (i) The introduction of new technology that promotes quality, cost effectiveness, or both in the delivery of health care services. (ii) The potential for provision of services on an outpatient basis. (iii) Any cooperative efforts to meet regional health care needs. (iv) At the discretion of the Commissioner, any other factors as may be appropriate.**

The proposal is the expansion of an MRI service that supports procedures that utilize cutting edge technologies. For example, Johnston-Willis was selected by Insightec, the manufacturer of the MRI Guided Focused Ultrasound manufacturer, to begin enrolling patients in a research trial. It is one of two sites selected in the U.S. and five sites globally to trial research opening the blood brain barrier for patients with small cell lung cancer brain metastases to allow targeted



immunotherapy delivery. Johnston-Willis was the first center in the U.S. to perform the research procedure.

**8. In the case of a project proposed by or affecting a teaching hospital associated with a public institution of higher education or a medical school in the area to be served.**

**(i) The unique research, training, and clinical mission of the teaching hospital or medical school. (ii) Any contribution the teaching hospital or medical school may provide in the delivery, innovation, and improvement of health care for citizens of the Commonwealth, including indigent or underserved populations.**

The applicant is not a teaching hospital associated with a public institution of higher education or a medical school in the area to be served.

**DCOPN Staff Findings and Conclusions**

Johnston-Willis Hospital's proposed project would expand MRI services by adding one scanner capable of supporting a number of specialized and uncommon services that require MR technology to perform. The proposed project is located in a high-growth area of Virginia and would improve more timely access to procedures in which MRI technology is critical, including Gamma Knife, MR guided focused ultrasound, MR guided breast biopsies and other more traditional MRI procedures.

The proposed project would not expand geographical access but would improve access by reducing wait times for MRI imaging and procedures supported by MRI. In particular, the applicant offers state-of-the-art MR guided procedures in the areas of neurosciences and cancer care that are not otherwise offered by providers in the area. The proposal is consistent with the applicable standards and criteria of the State Medical Facilities Plan and the 8 Required Considerations of the Code of Virginia. It is more beneficial than the status quo. Its proposed capital costs are reasonable and the proposal is wholly feasible in the long and short term with respect to capital expenses, projected income, and human resources. It has support, particularly from the physician community, and there is no documented opposition to the proposed project.

**DCOPN Staff Recommendations**

The Division of Certificate of Public Need recommends **conditional approval** of Chippenham & Johnston-Willis Hospitals, Inc.'s COPN Request number VA-8740 to expand its MRI service with one MRI scanner located at Johnston-Willis Hospital in Chesterfield County, Virginia for the following reasons:

1. The proposal to expand the MRI service at Johnston-Willis Hospital by adding one MRI scanner improves access to specialized MRI services otherwise not available in PD 15.
2. The proposal improves timely access in a highly populated, high-growth area of Virginia.
3. The proposed project is consistent with the applicable standards and criteria of the State Medical Facilities Plan and the 8 Required Considerations of the Code of Virginia.

4. The proposed project is unlikely to have a significant negative impact upon the utilization, costs, or charges of other providers of MRI services in PD 15.
5. Costs of the proposed project are reasonable and it appears to be viable in the immediate and long-term.
6. There is support for the proposed project, particularly among the physician community, and no known opposition to the project.
7. The proposed project is more beneficial than the status quo.

DCOPN's recommendation is contingent upon Chippenham & Johnston-Willis Hospitals, Inc.'s agreement to the following charity care condition:

Johnston-Willis Hospital will provide MRI imaging services to all persons in need of this service, regardless of their ability to pay, and will provide as charity care to all indigent persons free services or rate reductions in services and will facilitate the development and operation of primary medical care services to medically underserved persons in PD 15 in an aggregate amount equal to at least 1.0% of Johnston-Willis Hospital's gross patient revenue derived from MRI services. Compliance with this condition will be documented to the Division of Certificate of Public Need annually by providing audited or otherwise appropriately certified financial statements documenting compliance with the preceding requirement. Chippenham & Johnston-Willis Hospitals, Inc. will accept the revised charity condition based on data valued under the provider reimbursement methodology utilized by the Centers for Medicare and Medicaid Services for reimbursement under Title XVIII of the Social Security Act, 42 U.S.C. § 1395 et seq. is available from Virginia Health Information. The value of charity care provided individuals pursuant to this condition shall be based on the provider reimbursement methodology utilized by the Centers for Medicare and Medicaid Services for reimbursement under Title XVIII of the Social Security Act, 42 U.S.C. § 1395 et seq.

Johnston-Willis Hospital will provide MRI services to individuals who are eligible for benefits under Title XVIII of the Social Security Act (42 U.S.C. § 1395 et seq.), Title XIX of the Social Security Act (42 U.S.C. § 1396 et seq.), and 10 U.S.C. § 1071 et seq. Additionally, Chippenham & Johnston-Willis Hospitals, Inc. will facilitate the development and operation of primary and specialty medical care services in designated medically underserved areas of the applicant's service area.